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A Survey of Ethics in Anaesthesia Around the World

KIM Wonoak*, KIL Haekeum*, NAM Soonho* and PARK Hongro*

Summary

To identify the issues and to determine the extent of activities in making proper ethical decisions regarding anaesthesia around the world, 17 questions were asked via electronic mail to anaestheisa-associated doctors recognized by the Internet between April and June 1998. Information about issues, guidelines/standards/policy, consulting system/committee, education and training were requested. One hundred and twenty-two practitioners completed the questionnaire. Informed consent(38, 31.1%) was the most frequently raised issue, followed by medical economics(13.1%) and DNR(11.5%). The most serious broad issue was medical economics(13.1%), but specific or unique issues were not prominent. Among respondents, 73.8% had no guidelines/standards/policy in their department, 56.6% felt the need to have one, 38.5% had one in the hospital and 51.6% indicated they needed one in their Hospital. Most departments had no consulting system(61.5%) or committee(79.5%) in the department, while 48.4% had no consulting system and 63.9% had no committee in the hospital. A few (28, 23.1%) had a program/curriculum, and lectures were the most common format. The most common duration of ethical education was more than 3 hours and the main obstacle was time constraints. Informed consent(41.8%) was indicated as the most important issue to be taught. A limited number favored systemic support and the educational benefit of lectures on ethics. Most respondents were willing to have such a lecture program in the department. Establishing a systemic structure for ethics was recommended by most respondents and restricted resources should be distributed for this purpose according to the survey results.

Key Words : Ethics, Medical Education, Curriculum

* Department of Anesthesiology, Yonsei University College of Medicine, Seoul, Korea

Introduction

In recent years, an unprecedented expansion of high-tech medical knowledge has forced anaesthesiologists to confront a moral climate never experienced before, thereby escalating the need to refer to ethical resources for the appropriate responses. Although ethics have been considered essential to patient care in the distribution of resources and in determining health care policy, there has been much debate about precisely what are the dominant issues, how practitioners should be guided, how they are consulted and what they are taught about ethical principles.[1,2]

Cultural, socioeconomic and practical backgrounds may highlight different dilemmas and strategies under various conditions, but many ethical issues in medical care should be of global concern and should be resolved on that basis. Many departments and hospitals, sometimes on a nationwide basis, have strategies to cope with such issues by support systems and training programs depending on circumstances. However, others have unfortunately not yet established their own strategies and require the resources to do so. As well, surveys and reports in these areas are insufficient.

This study was designed to assess the extent of existing activities and support systems offered in ethics for anaesthesiologists, as well as to understand the current status of its applications in the field of anaesthesia around the world today.

Methods

All data were collected via electronic mail from doctors who were working in anaesthesia-associated fields recognized by the Internets World Wide Web. The survey explained the purpose of this study and assured confidentiality. No e-mail was sent in terms of regional representation, institution, university affiliation, race, social background or gender. The e-mailing period was from April to June 1998.

The respondents position, age, gender, and nationality were requested to provide

1) Frader J, Arnold R, Coulehan J, Pinkus RL, Meisel A, Schaffner K. Evolution of clinical ethics teaching at University of Pittsburg. *Academic Medicine* 1989; 64: 747-750.

2) Dowing MT, Way DP, Caniano DA. Results of a national survey on ethics education in general surgery residency programs. *American Journal of Surgery* 1997; 174: 364-368.

objectivity as well as for statistical use. Seventeen questions on a numerical-response questionnaire were prepared to acquire information about issues, guidelines /standards/policy, consulting system/committee, education and training in four divided sections which contained 3-5 questions in closely-related sets. Respondents were asked four questions and to check one or more responses among 21 suggested items (Table 1). If respondents chose more than one answer, they were asked to place choices in order of importance within 6 items. Thirteen questions requested one of three possible answers ("yes", "no", "others in detail").

Issues in the first section had 3 questions about frequent, serious and specific/unique problems in each department. The second section contained 5 questions on availability and establishment of guidelines/standards/policy. The third section requested answers to 4 questions about a consulting system/committee structure to investigate and resolve ethical problems. Five questions in the fourth section were asked to determine curricular activity for education and training. The respondents were asked to leave a description when they could not indicate an appropriate answer to suggested items. All data were coded and entered into a database for anonymity. To ensure confidentiality, names were not kept on record. Data analysis was performed using SPSS for Windows 7.5.1 (SPSS Inc., USA) for descriptive statistical analysis and frequency with proportion.

Table 1. Suggested items in 4 questions

1. Informed consent	2. DNR (do-not-resuscitate)	3. Euthanasia
4. Life sustaining	5. Brain death	6. Suicide
7. Telling the truth	8. Confidentiality	9. Medical economics
10. Resource allocation	11. Competence	12. Religious/Racial problem
13. Substance abuse	14. Personal problems	15. Clinical research
16. AIDS patients	17. Decision making	18. Animal experiment
19. Withholding, withdrawing treatment		20. None
21. Any others (in detail) ( )		

* 4 questions;
1. What are the most frequently confronted ethical and moral dilemmas that impact your department ?
2. What are the most serious dilemmas in your department ?
3. Does your department have specific or unique dilemmas ?
4. Rank of issues in ethical education according to importance in the curriculum.

Results

A total of 122 e-mails were returned for a response rate of 11% including 24 professors, 22 associate professors, 11 assistant professors, 4 instructors, 7 residents, 2 research fellows, 22 consultant anaesthetists, and 28 practitioners (2 unknown). Their mean age was 42.0±7.4 (S.D) and normally distributed from a minimum of 28 to a maximum of 60 years old. There were 108 men and 13 women (unknown 1). They represented 44 nationalities by different ethnic backgrounds. Regionally, there were 15 Asians, 58 Europeans, 23 North and 15 South Americans, 6 from Oceania, and 1 South African.

1. Issues

The most frequently confronted ethical and moral dilemmas that impacted departments were informed consent (38, 31.1%), medical economics (16, 13.1%), DNR (14, 11.5%) and life sustaining (14, 11.5%). Other responses were variably dispersed. The most serious dilemmas in departments were medical economics (16, 13.1%), no response (15, 12.3%), informed consent (14, 11.5%) and DNR (13, 10.7%). The remaining responses were scattered from 1 to 8. Two respondents proposed that abortion and blood transfusion of Jehovah's Witnesses were the most serious problem. Nearly half of the respondents (55, 45.1%) did not give any answers to specific or unique dilemmas in the respondents' department. Twenty-one respondents (17.2%) answered as none. Others were similar in numbers as less than 10, but DNR (8, 6.6%) and personal problems (8, 6.6%) were a little higher.

2. Guidelines/Standards/Policy

While only one-quarter of 122 participants had ethical guidelines/standards/policy in their departments, 90 (73.8%) respondents did not have one in their departments (Table 2). However, about half of respondents thought that their departments needed ethical guidelines/standards/policy, even though 21.3% did not agree. Forty-seven hospitals had ethical guidelines/standards/policy, but 61 (50%) anesthesiologists said that their hospitals did not. Sixty-three (51.6%) respondents felt that their hospitals needed ethical guidelines/standards/policy, while 20 (16.4%) respondents said they did not. Nineteen respondents indicated that they had guidelines/standards/policy in

both their department and hospital, 32 respondents had one in either their department or hospital, and 56 had one in neither. Fifty-two (42.6%) respondents indicated that their regional/national academic society had ethical guidelines/standards/policy, while 37 (30.3%) indicated they did not. One person appealed to set rules or guidelines/standards in ethics.

Table 2. Guidelines, standards or policy (%)

Questions	Yes	No
A	27 (22.1)	90 (73.8)
B	69 (56.6)	26 (21.3)
C	62 (56.6)	24 (19.7)
D	47 (38.5)	61 (50.0)
E	63 (51.6)	20 (16.4)
F	52 (42.6)	37 (30.3)

A; Does your department have ethical guidelines/standards/policy ?
B; Do you think your department needs ethical guidelines/standards/policy ?
C; Does your department need ethical guidelines/standards/policy ?
D; Does your hospital have ethical guidelines/standards/policy ?
E; Does your hospital need ethical guidelines/standards/policy ?
F; Does your regional/national academic society have ethical guidelines/standards/policy ?
* No response was excluded in the table.

3. Consulting system/Committee

The survey showed that most (75, 61.5%) departments do not have a consulting system compared with 27.9% of respondents who do (Table 3). Approximately half (59, 48.4%) of the hospitals had a consulting system and the other half did not. Twenty-nine respondents pointed out that they had a consulting system in both their

Table 3. Consulting system or committee (%)

Questions	Yes	No
G	34 (27.9)	75 (61.5)
H	59 (48.4)	55 (45.1)
I	21 (17.2)	97 (79.5)
J	78 (63.9)	34 (27.9)
K	26 (21.3)	90 (73.8)

G; Does your department have a consulting system for ethical dilemmas ?
H; Does your hospital have a consulting system for ethical problems ?
I; Does your department have an ethical committee ?
J; Does your hospital have an ethical committee ?
K; Does your department have a specific consulting system ?
* Others and no response were excluded in the table because they had a small number.

department and hospital, 31 had one or the other, and 50 responded that they had neither. Twenty-one (17.2%) had an ethical committee in their department and 97 respondents (97, 79.5%) responded that they did not. Seventy-eight (63.9%) respondents indicated their hospitals had a committee and one-quarter (27.9%) had not. Fifteen respondents indicated they had a committee in both their department and hospital, 64 had one or the other, and 30 had neither. The prevalence of specific consulting systems in departments dropped sharply to 26 (21.3%). Ninety departments had no such a system. Several respondents mentioned that their regional or national academic society already had an ethical committee.

4. Education and Training

Many departments (88, 72.1%) provided an ethical education and training while only 28 (23.1%) did not have a program/curriculum for ethics during residency. The formats included lectures (8), seminars (5), case presentations (1), rounds (2), combinations of lectures, seminars, and case presentations (6), and all of these (2) including role modeling. The length of ethical training during residency went from 0 hour (4), 1 hour (1), 2 hours (4), 3 hours (5), to more than 3 hours (16). The survey indicated the main obstacles in training ethical dilemmas were time constraints (15), logistic problems in the clinical setting (9), none (9), faculty attitude (8), and others (4) where opinions were not indicated in detail. Informed consent (51, 41.8%) was the top-ranked issues in ethical education according to importance in curriculum. Other items were sporadic, including life sustaining (7, 5.7%), DNR (6, 4.9%), truth-telling (6, 4.9%), and competence (6, 4.9%).

Discussion

There are various medical situations which require prompt ethical consideration and decisions in the daily practice of anaestheisa and related activities.[3] To the authors knowledge, an evaluation or statistics on the current status of ethics in anaesthesia could not be found. What is the most frequent dilemma in daily practice of anaesthesia? This study revealed that one-third of all respondents indicated

3) Waisel DB, Truog RD. An introduction to ethics. *Anesthesiology* 1997; 87:411-417.

informed consent. This issue doubled the ratio of medical economics, DNR, and life sustaining. The most serious problem was medical economics. Informed consent and DNR were also highly ranked. Specific or unique dilemmas did not result in narrowly focused issues. Only DNR and personal problems drew some attention. These results suggested what issues have to be stressed in sharing available resources and given priority. Informed consent, DNR and life sustaining were the more relevant ethical issues for anaesthetic activities. Medical economics and personal problems were somewhat general issues that were not confined to the field of anaesthesia and sometimes could be in a realm beyond the ethical dimension. In spite of these reasons, these two issues need to be resolved to relieve conflicts that occur in the practice of anaesthesia. The ethical implications of such issues are rarely explicitly stated. With current global economic turmoil, the medical economics topic would assuredly emerge to be more serious. Upheaval and tightened budgets have the possibility of provoking a moral hazard and double standards. Therefore, proper reconciliation with multidisciplinary, multidepartmental planning has to be proposed to the issue of medical economics and rationing of medical care to limited resources must be openly debated within an ethical framework in regard to cost-benefit concepts. A sound atmosphere in the process of disclosure and personalized consultation should be provided to overcome difficulties regarding personal problems.

A practical way of preventing and dissolving dilemmas is to establish guidelines/standards/policy. Almost 75% of departments did not have guidelines /standards/policy, while only 25% of respondents had such guidelines/standards /policy. Many anaesthesiologists preferred the idea that departments need their own guidelines/standards/policy. Half of the hospitals had guidelines/standards/policy and the same ratio of respondents urged the necessity for guidelines/standards/policy. This means that many anaesthesiologists are exposed to institutional negligence in the structure of effective ways of solving ethical dilemmas. Fifty-two respondents had guidelines/standards/policy in their regional/national academic society. Guidelines are not always a mighty sword in ethics. One study[4] showed that only 17% of 397

4) Green MJ, Mitchell G, Stocking CB, Cassel CK, Siegler M., Do actions reported by physicians in training conflict with consensus guidelines on ethics? *Archive Internal Medicine* 1996; 156: 298-304.

internal medicine trainees were aware of the guidelines on ethics and that 16% had acted outside the guidelines on one or more occasions. Setting guidelines/standards /policy is important, but discussing and inducing staff to keep guidelines/standards/ policy will be helpful in making proper ethical decisions.

The goal of an ethical consulting system/committee is not to give ultimate ways of resolving dilemmas, rather it assists and encourages the primary physician, the patient and the family to reach a good and proper clinical decision. To achieve the goal, this ethical consulting system/committee must accomplish a broad role in participating in dilemmas involving the institution.[5] Only a few respondents had a consulting system or a committee in their department, but a hospital-based consulting system/committee was common. Some respondents favored a specific consulting system or guidance from their national professional organization. It seems that more concern must be paid to relieve the tension from issues by institutional service.

Currently, ethics education is not specified as a clinical specialty program in many countries.[2] As noted in Pellegrinos paper, teaching clinical ethics improves the quality of patient care by making moral decisions in consideration of what ought to be done for an individual patient.[6] Perkins[7] justified the teaching of medical ethics during residency because it enhanced the development of ethical reasoning. There are residents who must learn to recognize the full range of ethical issues and learn a sound framework for resolving ethical issues. Furthermore, medical ethics can have its greatest impact during those professionally formative years. However, only a limited number of departments had any form of ethics program/curriculum. A small member of departments in this survey provided an ethics-related program/curriculum during residency in the form of lectures and seminars and half of them gave more than 3 hours in ethical training.

According to results of a national survey on ethics education in a general surgery residency program in the United States, 28% (56/198) had no ethics-related

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5) Waisel DB, Truog RD. How an anesthesiologist can use the ethics consultation service. *Anesthesiology* 1997; 87: 1231-1238.

6) Pellegrino ED, Siegler M, Singer PA. Teaching clinical ethics. *Journal of Clinical Ethics* 1990; 1: 175-180.

7) Perkins HS. Teaching medical ethics during residency. *Academic Medicine* 1989; 64: 262-266.

activities.[2] Our survey showed 72.1% had no ethics program/curriculum in residency. This gap (72.1% versus 28%) may be explained by the fact that we did not identify in our survey whether the respondents department was residency accredited and whether some departments really had no program/curriculum for ethics education. The most frequent form of teaching was lectures. The same results were reported in the status of ethics education in obstetrics and gynecology.[8] Although topic-oriented theoretical lectures had advantages, case presentation and seminars were surveyed to provide more satisfaction.[8][9] The duration of ethics education was usually more than 3 hours. The length and method for evaluation of outcome in ethics education still remains obscure. Commonly encountered barriers which hinder ethical training were time constraints and logistic problems in a clinical setting. That fact was consistent with Strongs survey.[10] The issue cited most frequently as the most important to be taught in a curriculum was informed consent.

Our method of survey through the Internets World Wide Web had several advantages. One was that it was inexpensive and the other was the time-saving effect of collecting mail and easy access to colleagues. A lower response rate was a pointed disadvantage of this method. A response rate of around 1% is said to be common in a poll via the Internet. An 11% response rate was higher than expected. A limitation of this study was that it was not detailed on specific issues or sections. Therefore, we could not provide any reasons or suggestions on specific issues. Further study will be needed to determine the specific causes behind these questions. We covered the broad scope on ethics in general and figured in proportion. However, we believe that the results of this survey could offer an objective basis for anaesthesia-affiliated departments to compare the current status of their department to the global society of anaesthesiology. It could also help to improve their department's surroundings and to reach the advanced goal of universal ethics.

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8) Casin JM, Elkins T, Bernard PF. The status of ethics education in obstetrics and gynecology. *Obstetrics and Gynecology* 1994; 83: 315-322.

9) Chamberlain JE, Nisker JA. Residents attitudes to training in ethics in Canadian obstetrics and gynecology programs. *Obstetrics and Gynecology* 1995; 85: 783-786.

10) Strong C, Connelly JE, Forrow L. Teachers perceptions of difficulties in teaching ethics in residencies. *Academic Medicine* 1992; 67: 398-402.

= 한글 초록 =

마취과 영역에서의 윤리 실태

김원옥* · 길혜금* · 남순호* · 박홍로*

전세계 마취과 영역에서 발생하고 있는 윤리적 문제점들의 파악과 적절한 윤리적 결정을 지원하기 위한 활동을 알아보았기에 이를 보고하고자 한다.

1998년 4월부터 6월까지 인터넷으로 확인한 마취과와 관련된 의사들에게 17가지의 질문들을 전자우편으로 발송하였다. 질문내용은 크게 4가지 범주로 윤리적 문제, 가이드라인/표준지침/정책, 자문조직/위원회 및 교육과 훈련에 관한 것이었다.

122명의 응답이 있었다. Informed consent(38, 31.1%)를 가장 흔히 발생하는 윤리적 문제로 지적하였으며, 다음으로 경제적 문제(13.1%) 그리고 DNR(11.5%) 순이었다. 가장 심각한 문제로는 경제적 문제(13.1%)가 가장 높게 나타났지만 두드러지지 않았고 그 외 다른 문제들도 특이하게 부각되는 문제는 없었다. 응답자들 중에서 73.8%는 과 내에 가이드라인/표준지침/정책 중 어느 것 하나 없다고 하였고, 이에 따라 56.6%는 이러한 가이드라인/표준지침/정책을 원하였다. 38.5%는 병원 내에 가이드라인/표준지침/정책 중에 하나는 있다고 하였으며, 51.6%는 병원 내에 가이드라인/표준지침/정책 중 하나를 원하였다. 대부분의 과에서 자문조직(61.5%) 또는 위원회(79.5%)가 없었으며, 병원 내에서도 48.4%는 자문조직이 없었고, 63.9%는 위원회도 없다고 하였다. 윤리교육과정이 있는 곳은 드물었으며(28, 23.1%), 강의형태가 가장 흔한 교육방법이었다. 교육시간은 3시간 이상이 가장 많았고, 교육의 주요방해 요인으로 시간적인 제한을 지적하였다. 그리고 교육해야 할 가장 중요 문제로는 informed consent(41.8%)를 꼽았다.

윤리적인 지원과 교육을 받고 있는 곳은 소수였으며 마취과 관련 의사들은 과 내에서 이러한 교육이 이루어지기를 바라고 있었다. 또한 윤리적인 문제의 적절한 해결을 위한 체계가 확립되기를 희망하였다. 따라서 이와 같은 결과에 근거하여 제한된 범위의 자원을 적절하게 활용해야 할 것으로 생각한다.

색인어 : 윤리 · 의학교육 · 교육과정

* 연세대학교 의과대학 마취과학교실